



DYNAMIC PROGRAMMING TECHNIQUES FOR SEQUENTIAL DETECTION AND TRACKING OF MOVING TARGETS IN RADAR SYSTEMS (WedPmOR9)

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✳ Abstract :

The problem of sequential multi-frame detection and tracking for low-observable moving targets is herein considered. A Sequential Probability Ratio Test (SPRT) is employed for the detection problem while target tracking relies upon a Maximum-A-Posteriori (MAP) estimate. The computational costs of the proposed algorithm is also considered and, supported by Dynamic Programming (DP), we develop an efficient implementation of the detection and tracking procedure.